

# THE USE OF THE BARK OF *STRYCHNOS NUXVOMICA* ; LINN., IN POISONING A CROCODILE

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There is no gainsaying the fact that the extermination of enemies of fish especially from fish sanctuaries should be the chief concern of those interested in fish and fish culture. Of all the several animals that prey upon fish the crocodile is indisputably the largest and the most difficult to reckon with.

The crocodile though not entirely a piscivorous creature appears to show a predilection towards this diet when it is available in sufficient quantity and therefore it becomes a permanent resident in stretches of water where fish abound causing incredible damage to the fisheries. In the Cauvery River, for instance, large congregations of fish occur below the Hogainkal Falls about 30 miles up from the Mettur Dam, which happens to be an insurmountable barrier for the migrating fish during most of the year excepting when the river is in spate. Fish conservancy laws are enforced here prohibiting all types of fishing for about 2 miles down the river. This region has unhappily become the abode of the Mugger. Large numbers of these beasts are seen here anytime of the day lazily swimming in the river or basking on rocks or banks with appalling unconcern. The periodic hunting expeditions of shikaris interested in crocodile shooting to this place do not appear to have helped much in eradicating this leviathan pest from one of our most important fish sanctuaries.

These crocodiles seem to subsist mainly on fish like large catla, cat fish and other carp which swarm in this region in countless numbers. They frequently migrate down as far as the Mettur Dam, so much so, that the entire Stanley Reservoir could be said to be infested with these reptiles. Even below the dam one is apt to see them anywhere in the river, predated on fish which migrate upstream in dense shoals only to stagnate in the face of the dam. People of these neighbourhoods are therefore encouraged by the Department of Fisheries to annihilate the monsters by offering rewards for every crocodile killed.

There are two popular ways by which the crocodile is generally done away with in the Stanley Reservoir and in the Cauvery River below the Mettur Dam. These are: (i) hooking and (ii) poisoning. Shooting is of course indulged in as sport by an interested few. In the present article the material and method employed in poisoning Mugger is discussed, which being the most effective and easy way of decimating this enemy of fish it is felt may be of interest to those faced with this problem elsewhere.

## MATERIAL EMPLOYED

The material that is used as poison is the bark of *Strychnos Nuxvomica* Linn. (Tamil: *Yetti*, *Yettimaram* or *Yettikottai*; Telugu:

*Mushli, Musidi, Induppu*; Kanarese: *Kasaraka, Kujarra, Khasca, Kasaragadde, Mushli*; Hindi: *Kuchla, Kajra, Nirrual, Chilibinge, Bailwa*.)

This is a tree found throughout tropical India upto an altitude of about 4,000 feet, common in Madras Presidency, attaining a height from 35 to 50 feet. It can easily be identified by its ovate, five-nerved, glabrous leaves ( $3\frac{1}{2}'' \times 2''$ ), yellow berries  $1\frac{1}{2}''$  in diameter with one or more seeds,  $7/8$ th inch to one inch diameter and  $\frac{1}{4}''$  thick. Seeds are flatish concavo-convex, rounded at the margin, marked on one side by a central scar whence a projecting line passes to the margin ending in a slight prominence. Externally they are of an ash-gray colour glistening with satiny hairs, internally horny somewhat translucent without any odour but with an extremely bitter taste.

The *Nuxvomica* tree is of great economic value mainly for its seeds which are put to diverse medicinal uses all over the world. They are exported from India to the United Kingdom in large quantities annually for the manufacture of strychnia chiefly used for the preparation of nervine tonics.

In India itself the seeds in different combinations are used as a medicine for dyspepsia and diseases of the nervous system. On the Malabar coast the root is given in cases of snake bite. In Konkan small doses of the seeds are given in colic combined with aromatics, and the juice of the fresh wood is given in doses of a few drops in cholera and acute dysentery. The oil from fresh seeds is used as an external application in chronic rheumatism. *Nuxvomica* seeds produce a sort of intoxication for which they are habitually taken by some as an aphrodisiac. The seeds of *Nuxvomica* which contain 0.2 to 0.5 per cent strychnine and 0.12 to 1 per cent brucine are commonly used as fish poison. These are pounded and thrown in water when all the fish come up to the surface in a state of intoxication. The leaves of the plant broadcast in water produce the same effect on fish life. In European medicine it was first known about the middle of the 16th century when the chief use of its seeds was for poisoning cats, dogs, crows and ravens.

#### METHOD OF POISONING A CROCOLILE

Advantage is taken of the fact that a crocodile as a rule prefers decomposed meat, specially fish, to fresh. It is known to be attracted from long distances by the stench of putrified fish. Chippings of the bark of *Nuxvomica* are pulverised by pounding, care being taken to tie a piece of cloth round the mouth and nose to prevent the dust from getting in as it is supposed to be very poisonous even if inhaled. About 8 ounces of this powder are stuffed into a fish, preferably a carp weighing about  $1\frac{1}{2}$  to 2 pounds which has been gutted by making a small incision in its belly. The slit is sutured up and the fish kept on the bank or on some rock above water in such a way that the poison does not trickle out and foul the water. This is done some time after dusk to prevent other animals from devouring it and coming to grief. The crocodile attracted by the taint of the dead fish, which does not take long to putrefy makes straight for it and swallows it. It dies during

the course of the same night and its carcase is usually found floating somewhere near about the next morning.

Seven crocodiles were bagged in this fashion during the course of three months in the Stanley Reservoir. All these had died so instantaneously, that the fish stuffed with the poison was found intact inside their stomachs; the little amount of the Nuxvomica bark powder that may have oozed out in solution through the stitches having done its work.

The advantages of this method of killing a crocodile over either hooking or shooting it are : (i) the animal dies and floats up quickly so that the carcase is available for skinning before any decomposition has set in, (ii) the method involves practically no expense save the cost of one fish which is low enough, (iii) it needs no elaborate arrangements and no labour, (iv) it is infallible. A crocodile dives deep down the first thing it is shot and expires under water if the shot has been well aimed. Usually it will be days, perhaps weeks before its carcase comes up, by which time decomposition will have affected even its hide and ruined it as a trophy. It is a different matter if the crocodile has been shot when it is well up on land or the shot so lethal that it anchors the animal to the spot and gives it no chance to get away into distant depths. Such opportunities are of course always rare.

If a crocodile is to be baited and hooked, apart from this method involving the element of chance, the bait has often to be replenished more than once before the animal actually gets hooked, for, it generally manages to make off with the bait without touching the hook. The bait which is either a large dead fowl, a lamb or the entrails of sheep, becomes a comparatively expensive proposition if it has to be repeated a number of times for the same crocodile.

There is only one precaution that has to be taken if the crocodile has been killed by poisoning; its meat should be buried deep down or destroyed in some other way and people should not be allowed to consume it in any form. Usually when the news goes round that a crocodile has been killed people flock immediately and virtually pick the bones of all flesh which they preserve by converting it into fillets and sun drying. This dried meat is used as a remedy for whooping cough in children. A small bit of it is made into a thin soup and administered. Some people soak this dried meat in brandy and drink the liquor in cases of asthma. The meat of a poisoned crocodile appears to be dangerous to all life. A healthy pariah dog that was inadvertently allowed to eat a small bit died within four hours of taking it with pitiable convulsions and in excruciating agony.

#### REFERENCES

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